

REMARKS

By this Amendment, claims 1, 5, 11, 14, and 18 are amended and new claims 23-30 have been added merely to provide further dependent claim support to the pending independent claims. Claims 6, 8, 9, 19, 21, and 22 have been cancelled without prejudice or disclaimer. After entry of this amendment, claims 1-5, 7, 10-18, 20, and 23-30 will remain pending in the patent application. Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

Claims 1-22 were rejected under 35 U.S.C. § 103(a) based on Tsukamoto et al. (U.S. Patent No. 6,809,802) (hereinafter referred to as “Tsukamoto”). The rejection is respectfully traversed.

Applicants respectfully submit that the Examiner has not presented a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

MPEP § 2143. In the present case, the Examiner has failed to show every one of the three criteria. No prior art reference has been cited by the Examiner for a teaching of the claimed lithographic apparatus with liquid supply, the Examiner has not pointed to any motivation in the prior art to modify the Tsukamoto reference, and the prior art of record contains no reasonable expectation of success of combination.

The Examiner concedes that Tsukamoto fails to teach that the substrate attracting and holding system disclosed therein is used in an immersion lithography apparatus and makes no attempt to identify prior art that overcomes this deficiency. The Examiner therefore engaged in impermissible hindsight reasoning in view of Applicant's disclosure to conclude obviousness. For these reasons, Applicants respectfully request that the rejections of claims

1-22 under 35 U.S.C. § 103(a) be withdrawn for failure to produce a *prima facie* case of obviousness.

Further, Applicants respectfully submit that claims 1-22 are patentable over Tsukamoto since Tsukamoto does not, alone or in combination, disclose, teach, or suggest the limitations of the claims.

Regarding claim 1, Tsukamoto does not disclose, teach, or suggest a lithographic projection apparatus comprising, *inter alia*, “a port configured to exhaust a gas and a liquid” as claimed. Tsukamoto discloses various configurations for adapting a substrate attracting and holding system including a chuck to reduce deformation of a substrate but does not disclose, teach, or suggest that the chuck or wafer holding system may be used in an immersion lithography apparatus and be able to exhaust a liquid. Therefore, claim 1 is patentable over Tsukamoto, and Applicants respectfully request that the rejection be withdrawn.

Claims 6, 8, and 9 have been cancelled and so their rejection is now moot. Claims 2-5, 7, 10, 25, and 26 depend from claim 1 and are, therefore, patentable for at least the same reasons provided above related to claim 1, and for the additional features recited therein.

Regarding claim 11, Tsukamoto does not disclose, teach, or suggest a device manufacturing method comprising, *inter alia*, “exhausting a liquid from between the substrate and the burl plate.” As discussed similarly above with respect to claim 1, Tsukamoto does not disclose, teach, or suggest exhausting a liquid from between the substrate and the burl plate. Therefore, claim 11 is patentable over Tsukamoto, and Applicants respectfully request that the rejection be withdrawn.

Claims 12, 13, 23, 24, 27, and 28 depend from claim 11 and are, therefore, patentable for at least the same reasons provided above related to claim 11, and for the additional features recited therein.

Regarding claim 14, Tsukamoto does not disclose, teach, or suggest a burl plate wherein, *inter alia*, “the burl plate is configured to permit leakage of a liquid into a space between the burl plate and the substrate.” As discussed similarly above with respect to claim 1, the substrate holding system of Tsukamoto does not disclose, teach, or suggest that the chuck or substrate holding system may permit leakage of a liquid into a space between the burl plate and the substrate. Therefore, claim 14 is patentable over Tsukamoto, and Applicants respectfully request that the rejection be withdrawn.

Claims 19, 21, and 22 have been cancelled and so their rejection is now moot. Claims 15-18, 20, 29, and 30 depend from claim 14 and are, therefore, patentable for at least the

same reasons provided above related to claim 14, and for the additional features recited therein.

Because the disclosure of Tsukamoto taken singly or in any proper combination fail to disclose, teach, or suggest the claimed subject matter of claims 1-22, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) of claims 1-22 based on Tsukamoto be withdrawn and the claims allowed.

Claims 1, 3, 8, and 9 were also rejected under 35 U.S.C. § 103(a) based on Aoyama (JP 10-50810). The rejection is respectfully traversed.

As discussed above with respect to the rejections based on Tsukamoto, the Examiner has again failed to present a *prima facie* case of obviousness. The Examiner simply paraphrased the abstract of the publication without making any explanation as to how the prior art allegedly discloses an immersion lithography device in combination with a burl plate, what the motivation to combine different aspects of the prior art is, and how the prior art contains a reasonable expectation of success. Applicants therefore respectfully request that the rejection be withdrawn or, if the application is not deemed allowable upon this Amendment, that any subsequent Office Action be made non-final.

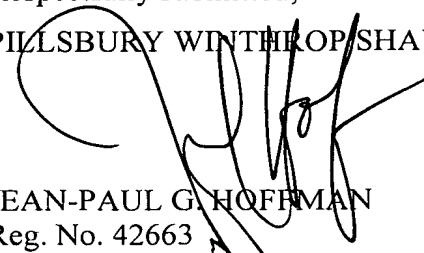
In addition, claims 1, 3, 8, and 9 are patentable over Aoyama for at least similar reasons discussed above with respect to Tsukamoto. That is, there is no discussion whatsoever in the cited portions of Aoyama pertaining to the use of the substrate suction device disclosed in an immersion lithography system. There is no indication therein that the device comprises a port configured to exhaust a gas and a liquid, as claimed. Therefore Aoyama does not disclose, teach, or suggest the limitations of claim 1. Claims 3, 8, and 9 depend from claim 1 and are, therefore, patentable for at least the same reasons provided above related to claim 1, and for the additional features recited therein.

Because the cited portions of Aoyama taken singly or in any proper combination fail to disclose, teach, or suggest the claimed subject matter of claims 1, 3, 8, and 9, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) of claims 1, 3, 8, and 9 based on Aoyama be withdrawn and the claims allowed.

Applicants have addressed all the Examiner's rejections and respectfully submit that the application is in condition for allowance. A notice to that effect is earnestly solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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